

ENVIRONMENTAL SECURITY: WHAT ENVIRONMENTAL
ISSUES IMPACT REGIONAL STABILITY AND AFFECT
UNITED STATES FOREIGN POLICY WITH MEXICO?

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Contents

	<i>Page</i>
DISCLAIMER	ii
LIST OF TABLES	v
PREFACE	vi
ABSTRACT	vii
INTRODUCTION	1
ENVIRONMENTAL SECURITY	3
Executive Branch	4
Engagement and Enlargement	5
Defining Environmental Security	6
Executive Environmental Direction	9
Economic and Political Considerations	10
Economic Factors	11
Political Factors	13
Non-State Influences on Environmental Security	14
Non-Governmental Organizations (NGOs)	14
International Governmental Organizations (IGOs)	15
ENVIRONMENTAL ISSUES IN MEXICO	18
Deforestation	19
Impact on Environmental Security	19
Sanitation and Water	20
Water	20
Sanitation	21
Impact on Environmental Security	22
Air Quality	22
Impact on Environmental Security	23
Population Growth	24
Migration	24
Impact on Environmental Security	25
ROLE OF GOVERNMENT AND ECONOMY	27
Mexican Government Stability	28

Economy.....	29
North American Free Trade Agreement (NAFTA).....	30
MUTUAL COOPERATION - THE FUTURE.....	33
United States/Mexico Environmental Cooperation.....	34
Regional Cooperation.....	35
Participation in Regional Environmental Issues	36
CONCLUSIONS	39
GLOSSARY	42
BIBLIOGRAPHY	43

Tables

	<i>Page</i>
Table 1. United States/Mexico Environmental Cooperation.....	35

Preface

With the fall of the Soviet Union, the world finds itself in a unique unipolar environment. The United States now leads alone in this new world order. Therefore, we have the obligation to develop clear objectives and policies for transnational issues affecting America's and its allies' vital interests. United States vital interests have been and should always be the foremost concern of United States policy, but many of today's issues require worldwide cooperation. Without the overriding foreign policy focus of the Soviet Union, United States national security attention has shifted focus to regional conflict, proliferation of weapons of mass destruction, and other transnational problems. Transnational problems include terrorism, organized crime, drug trafficking, and a host of environmental issues. This paper focuses on those environmental issues that effect foreign policy and regional stability. I have chosen to isolate my research to the relationship between the United States and Mexico due to its regional importance to America.

I would like to thank Major Bob Fant, a friend and colleague, for his encouragement and efforts to make this paper a worthwhile endeavor for both of us. In the process, he helped teach me how to do better research and stay focused on the objective.

Abstract

This paper examines what environmental security is and what issues effect it, concentrating on the United States/Mexico relationship. The United States is the only viable world leader since the fall of the Soviet Union. This unique leadership role offers opportunity and responsibility for shaping and developing world consensus and action for transnational issues. This paper explores the issue of environmental security in the broad sense for the United States and then concentrates on regional environmental security between the United States and Mexico. The importance of the Mexican government and economy as well as environmental issues in Mexico will be reviewed. The research is based on information available for the most part since 1990 and relies heavily on US State Department dispatches and Foreign Broadcast Information Service (FBIS) articles from Mexico.

Environmental security affects a country's vital interest and is thus important enough to devote diplomatic and economic resources towards well defined goals. The environmental conditions in Mexico are not unique for a developing country; however they do have a border with us, and thus present a valid case study opportunity for other regions. United States foreign policy initiatives with Mexico are positive. Continued actions and results depend on a stable Mexican government and vibrant economy.

Chapter 1

Introduction

Securitization of the environment invites a state-centered thinking about security, with the ability to withdraw from or respond to environmental problems depending heavily on the character of the state in question. Politically unstable and/or economically poor or dependent states may have to choose between cheap and quick industrialization and environmental protection. The two strategies may be mutually exclusive but equally important to satisfy the international community.

—Nina Graeger
Environmental Security?

The United States stands alone as the only viable world leader since the fall of the Soviet Union. This unique unipolar leadership role offers opportunities and responsibilities for shaping and developing world consensus and action for transnational issues. This paper explores the issue of environmental security in the broad sense for the United States and then concentrates on regional environmental security between the United States and one of its most important regional neighbors, Mexico. Environmental cooperation between the United States and Mexico offers an excellent case study for reviewing other international environmental relationships.

Environmental security affects a country's vital interest and is thus important enough to devote diplomatic and economic resources towards well defined goals. The environmental conditions in Mexico are not unique for a developing country and thus

present an opportunity for comparison with other regions. United State's environmental foreign policy initiatives with Mexico are producing positive results. Continued regional cooperation and a stable Mexican government and vibrant economy are essential for the positive trend to continue.

Chapter 2

Environmental Security

Almost as if according to some natural law, in every century there seems to emerge a country with the power, the will, and the intellectual and moral impetus to shape the entire international system in accordance with its own values.

—Henry Kissinger
Diplomacy

America's world leadership position depends on its willingness to exercise its power and influence. For transnational issues like the environment, effective influence results more from diplomacy and economic instruments of power than military application of force. The military instrument will always be critical to protect countries against a host of threats, but transnational environmental issues require large scale cooperation on the world front. Just as the Gulf War illustrated, someone must take the lead and form coalitions and develop world consensus on how best to solve a given international crisis. The United States stands as the only country currently able to assume this leadership position for world wide environmental security issues.

Various actors play a role in United States environmental security matters. Non-state actors include International Governmental Organizations (IGOs) such as the United Nations (UN) and Non Governmental Organizations (NGOs) such as Greenpeace. This chapter reviews the role the United States executive branch exercises in environmental

security matters. The executive branch plays the major role in shaping and implementing environmental security measures. In addition other actors such as non state actors will be reviewed. This chapter also looks at security issues from a global view before addressing specific United States/Mexico issues.

Executive Branch

The executive branch is responsible for setting United States foreign policy direction and determining a national security strategy. Many executive departments, including the State Department, help the president perform his foreign policy functions. The Goldwater-Nichols Defense Department Reorganization Act of 1989 requires the president to formally outline his national security strategy. President Clinton developed the current security strategy of engagement and enlargement and published this guidance in February 1996. The president's guidance is particularly helpful in developing military strategy, but also for developing and implementing coherent United States foreign policy for other governmental entities and non-military matters such as the environment. One of the more important groups used in working foreign policy issues for the president is the National Security Council (NSC).

The President uses the NSC to examine, develop, and address national security policy. The NSC is composed of various representatives from the major governmental departments and agencies. They include representatives from the Department of Defense (DOD) to the State Department. This group has taken a dominating role in foreign policy development since its inception in 1947. The major benefit of the NSC is the ability to focus the core agencies of the government on key issues. The key topics of the past

tended to require military and economic action, rather than heavy diplomatic action, to reach a desired end state.¹ Environmental issues differ as they should rely more heavily on diplomatic and economic instruments of power for long term solutions. Most environmental issues are not large enough or threatening enough to demand the attention of the NSC, but as the NSC engages in world events they must consider the consequences to the environment and be ready in the future understand the nature of environmental security issues.

Engagement and Enlargement

President Clinton outlined the current United States national security policy in his February 1996 document *A National Security Strategy of Engagement and Enlargement*. The policy outlines several major goals: to enhance United States security with military forces ready to fight, bolster America's economy, and promote democracy abroad. This strategy sends a clear message to the world and United States governmental agencies. The United States is going to actively "engage" in the world to promote its stated goals. The president's policy position is based on the principle that America's economic strength gives it a basis for working global issues. In addition, he promotes the spread of democracies as they "...create free markets that offer economic opportunity, make for more reliable trading partners and are far less likely to wage war."² The policy views world problems from their impact on United State's interests. However, global problems are addressed through partnerships and the international community.

Defining Environmental Security

Definition. “A threat to environmental security is whatever threatens to drastically 1) degrade the quality of life for inhabitants of a state, or 2) narrow the range of policy choices available to the government.”³

Arguments exist whether the environment should be considered a valid national security issue and many existing models which address a state's interests are inadequate when addressing environmental security threats. Most environmental issues affecting national security are long range problems. These simply do not conveniently fit in existing model categories. The models tend to view world problems in terms of escalation where the military instruments of power (IOP) can be used as a method of last resort. It is hard to imagine solving ozone depletion through military action. The elimination of the ozone layer will clearly affect the ultimate security of nations if taken away. But again, how could military forces be used to solve the ozone problem. Understanding that environmental problems affect a state's core interests is important for formulating effective long term environmental security foreign policy.

Transnational environmental matters, for the most part, must be solved by diplomatic and economic IOPs. Transnational environmental concerns are defined as relating to air and oceans for this discussion. Some environmental issues directly affect our core interests and therefore present security concerns for the United States. Most of these problems are long range in nature and are not readily recognized as a threat to core interests. Global warming for instance is estimated at .3°C increase per decade.⁴ This is hardly a figure to grab immediate decisive action. However, it still meets the definition of a core state interest. Barry B. Hughes in his book, *Continuity and Change in World*

Politics, asserts a state's core interests, "...flow from its desire to preserve its essence: territorial boundaries, population, government, and sovereignty." A state can not preserve its "essence" without a functioning, healthy, stable environment.

Some environmental issues, such as water, provide a more pressing illustration of how a resource can lay the ground work for future regional conflict. In this case military action might be plausible for a short term solution, to say conquer land to provide access to water. However, no satisfactorily long term resolution can be gained from use of military action in this scenario. Long term stability depends on equitable distribution of resources based on mutual trust and peaceful negotiations.

Environmental security can be viewed separately in terms of a regional or transnational concerns. Issues dealing with the oceans and air tend to be more transnational. Other issues like potable water, deforestation, and resource depletion tend to be regional in nature. As the world becomes increasingly mutually dependent, even regional security matters can have far reaching impacts on other countries. A conflict in Latin America will affect stability in a region close to the United States. For these reasons even regional environmental problems must be reviewed, and as practical addressed as transnational security problems by the world community.

Outlook for the United States: The United States must address environmental issues in two categories. The first type are those isolated to a region. These issues include disputes over resources, such as water in the Middle East. Countries deem water as a core interest and may resort to the military IOP to gain territory to control this vital resource. Economic and diplomatic solutions can prevent military conflict if all parties are actively engaged. Transnational concerns are the second category of environmental

issues. They present the long term challenge for the United States. Both represent significant impacts for the United States economy, population and territory and are thus security concerns for Americans. The United States can selectively engage diplomatically and economically in regional conflicts that could escalate and affect United States vital interests. Transnational environmental issues require active participation as the new world leader—for valid transnational environmental issues will affect America’s future security.

Department of Defense Involvement: The Department of Defense (DOD) can play a significant role in implementing United States environmental foreign policy objectives. DOD created the Office of the Deputy Under Secretary of Defense for Environmental Security to spearhead DOD’s environmental security mission. The mission of the office is to strengthen national security by integrating environmental, safety and health considerations into defense policies.⁵ Military to military relationships can help foster better relationships and promote better stewardship of the environment by foreign countries.

Secretary of Defense, William J. Perry summarized best the impact our military can have on the global environment. He said, “There is a great benefit when militaries of the world do their part to protect and preserve their environments. There is a greater benefit when they do this by working together. Not only are we making the world a cleaner and safer place; we are also bridging old chasms and building new security relationships based on trust and warmth. That makes the world a more peaceful place.”⁶ In the future the DOD can play a greater role as a diplomatic and economic tool for working environmental security issues.

Executive Environmental Direction

President Clinton recognized the environment's importance to United States security in *A National Security Strategy of Engagement and Enlargement* document. He said, "The strategy also recognized that a number of transnational problems which once seemed quite distant, like environmental degradation, natural resource depletion, rapid population growth and refugee flows, now pose threats to our prosperity and have security implications for both present and long term American policy."⁷ The problems of environmental issues are stated in the beginning of the president's national security strategy document, indicating the importance of the issue. President Clinton does not overstate the problem.

The president clearly recognizes other threats to America's security in his engagement and enlargement national security strategy. Many of these threats, such as regional and ethnic conflicts, are more immediate concerns. By highlighting the transnational problem of the environment; however, he provides leadership to the United States government hierarchy and foreign countries for solving international environmental problems. Policy is nothing if not translated to action in the field.

The Bush administration's refusal to actively shape and endorse initiatives developed at the 1992 UN sponsored Conference on Environment and Development were a impediment to United States leadership in the environmental arena. Tony Brenton in his book, *The Greening of Machiavelli*, contends that the United States has on occasion taken an inverted position in dealing with external environmental issues⁸. This UN conference presented the United States an opportunity to lead the world in a unified direction. We lost the opportunity. Little progress can be made in solving worldwide or

many regional environmental issues without clear United States policy and commitment, both in terms of time and financial support.

Financial support will be harder to justify for environmental issues, particularly international concerns, in times of reduced expenditures. The focus should therefore be on the most pressing and destabilizing environmental security issues, whether transnational or regional. Only the president can define these priorities and ensure limited funding is effectively managed. The total price tag for correcting global environmental issues is estimated at around \$625 billion a year and the United States cannot afford to pay the whole tab.⁹ The United States must build world consensus and support for solving environmental concerns.

Economic and Political Considerations

The struggle for a safer environment for the future is often defined in terms of North-South. The Northern states, or developed nations, tend to have more financial resources. The Southern states, developing countries, tend to have less financial wealth but in many case natural resources. These developing nations have more problems than the environment to worry about. “There are too many other variables mixed in, such as inefficient economies, unjust social systems, and repressive governments, any of which can predispose a nation to instability (and thus in turn, make it especially susceptible to environmental problems).”¹⁰ The United States must consider the economic and political factors of a given country or region when developing environmental policy or actions.

Economic Factors

The world economies are more intertwined and mutually dependent today than ever before. The United States must understand and address the economic impacts to the world community and affected countries when developing environmental security strategies. Long term environmental security should not take precedence over short term economic and political stability of developing countries. The issue of chlorofluorocarbons (CFCs) presents an excellent example of the economic impacts of environmental decisions.

Montreal Protocol. The convention met in September of 1987 with the purpose of reducing worldwide CFC production and use. It was the first time "...countries agreed to impose significant cost on their economies in order to protect the global atmosphere."¹¹ A 10-year phase out schedule was developed to lessen the hardship on economies of developing countries and gain the support of developing countries. Tensions between North and South rose as a number of Southern states held out signing the agreement without financial and technological considerations. Modifications to the Montreal Protocol following the convention allowed for continued international acceptance by some 50 hold out countries. In the end, developed countries provided the necessary economic relief and technological guarantees to get some 74 countries to ratify the Montreal Protocol.¹²

Treaties like the one governing CFCs may help prevent developing nations prevent some of the environmental problems experienced in developed countries. As the world community learned, environmental problems result as countries develop and those problems are not quickly resolved. "Air quality in many British and American cities and water quality throughout much of the two countries has improved steadily since the early

1970s.”¹³ This development is due to aggressive internal action by the United States and Great Britain to resolve air and water quality problems—legacies from the two country’s own industrialization over the past two hundred years.

Developed countries can help developing countries industrialize with “friendlier” technologies and techniques as illustrated in the CFC agreements. Northern states assisted Southern states with development of alternate ozone friendly chemical technology to replace ozone harmful CFCs. Assistance to less-developed countries (LDCs) does not always have to take the shape of financial aid or loans. Technical assistance and international treaties and regulations can help LDCs help themselves in some cases. However, many LDCs still need capital investment from the international financial institutions to capture new, more efficient and “friendly” technologies.

International Financial Institutions: International Financial Institutions (IFIs) represent a component of the economic IOP in United States foreign policy. IFIs include; the World Bank, the International Monetary Fund (IMF), and regional development banks. Joan E. Spero, Under Secretary for Economic, Business, and Agricultural Affairs in the State Department summed up the value of IFIs this way, “...we rely on them to support our foreign policy objectives, to foster stability, growth, sound policies, and open markets essential to the success of American firms overseas, and to promote the values that Americans cherish—open societies, transparent and accountable government institutions, responsible stewardship of the environment, the eradication of poverty, and the opportunity for everyone to reach his or her fullest potential.”¹⁴ Continued United States world influence and leadership stems from strong support of these institution in terms of guidance and funding.

The regional development bank available to Mexico is the Inter-American Development Bank (IDB). The IDB is dedicated to “...achieving hemispheric standards and intensifying cooperation on capital markets, infrastructure development, sustainable energy use, environmental protection, and microenterprise development.”¹⁵ The goals of the IDB are very similar to the goals outlined in President Clinton’s policy of “engagement and enlargement” reviewed earlier. The bank clearly promotes American values and priorities. The IDB increased lending for environmental projects at an annual rate of 35.7 % from 1991-1995.¹⁶ The IDB and other International Financial Institutions are a useful IGO for executing environmental security policy.

Political Factors

National politics help shape and influence a government’s environmental decisions. Elected officials in democracies, like the United States, may react to public will and opinion when formulating a position regarding foreign environmental issues. Depending on the issue, this influence may be exerted by individuals or special interests groups. Sufficient pressure can influence states to react to environmental issues for economic reasons rather than the interest of the environment. For several years the United States and Mexico have feuded over the issue of Mexican tuna sales in the United States. The United States position is based on the detrimental tuna fishing effects to dolphins.

Tuna War: For over six years the United States has banned import of tuna from Mexico. Reason for the ban is based on a United States formula for reducing the number of dolphins killed by fisherman. Mexican officials contend the real issue may be more economic than environmental. Environmental groups within the United States are split on the issue, but Senator Barbara Boxer from California still opposes lifting the ban. Mexico

asserts it dropped the rate of accidental dolphin capture during fishing activities to practically zero since 1993. “In addition, Mexico has been able to make the activity more efficient, to the point that a can of tuna costs 40 United States cents, while one can costs \$1.20 in the United States.”¹⁷ Domestic political factors can drive environmental policy for other motives.

Non-State Influences on Environmental Security

Non-governmental organizations (NGOs), international governmental organizations (IGOs) impact environmental security today more than ever. NGOs can muster worldwide pressure on states to react to international environmental issues they might normally ignore. The sheer number of NGOs in the environmental arena and the conflicting interests of these groups further complicate their impacts on the process. IGOs present useful forums for facilitating change. Through use of IGOs, coalitions can be built for solving international problems, to include NGOs.

Non-Governmental Organizations (NGOs)

“In the US alone the 12 biggest NGOs have a combined membership of over 11 million people and a combined operating budget of more than \$300 million per annum,”¹⁸ per Tony Benton in his book *The Greening of Machiavelli*. NGOs represent a significant influence for United States policy makers. Some of the better known NGOs are the Sierra Club and the World Wildlife Fund. NGOs have different interests and charters. Papp, in his book *Contemporary International Relations*, describes NGOs as extremely diverse in size, composition, objectives, and influence without formal governmental ties. These

organizations tend to be transnational in their outlook and influence. In the case of United States and Mexican environmental security affairs NGOs are important actors to consider.

Greenpeace, one of the better known environmental NGOs recently involved itself in United States/Mexico affairs. Greenpeace activists chained themselves to the United States embassy in Mexico to protest the installation of a radioactive dump in Sierra Blanca, Texas on 6 August 1996. Although the dump is located over 30 miles from the United States Mexican border, the protesters raised concerns over the affect on water tables and health of local Mexican residents.¹⁹ In this case what might be considered a United States domestic issue received international exposure due to the proximate location of another country's border. Greenpeace helped raise public sentiment and pressure on both the United States and Mexican governments to alter their positions.

Sentiment in both the United States and Mexico turned against the proposed dump. The city of El Paso devoted \$10,000 to fight the permit for the dump and the Mexican states of Chihuahua and Coahuila passed resolutions opposing the dump.²⁰ The influence of NGOs and their agenda must be considered when developing foreign policy.

International Governmental Organizations (IGOs)

IGOs are created by states for a variety of reasons, including collective security and forums for communication. Perhaps the best known IGO is the United Nations (UN). Similar to NGOs the number of IGOs has grown to over 400.²¹ Unlike NGOs, IGOs receive their charter and power from member states of the organization. IGOs therefore reflect the consensus of their members. Daniel Papp summarizes IGOs this way, "the ability of IGOs to approach, analyze, and propose solutions to problems and issues that transcend national boundaries is in most cases unequaled by any other international

actor.”²² IGOs present an excellent forum for addressing and solving transnational environmental issues. They can address issues internal to a region or transnational concerns, while avoiding the implication of violating states sovereign rights.

As the world turns its attention to more transnational issues they can use existing IGOs or create new ones to develop workable solutions. IGOs must be sensitive to NGOs and their opinions and inputs. By including NGOs in problem solving exercises, future implementation problems may be avoided. For example, the Inter-American Commission for Tropical Tuna (CAIT) formed from member countries such as the United States and Mexico also includes NGO participants. Their inclusion signals a willingness for cooperation and openness by the CAIT state members which include the United States and Mexico. If future environmental solutions are to be reached, they must be reached with all actors involved to include IGOs and NGOs.

Notes

¹ Dennis M. Drew and Donald M. Snow, *Making Strategy* (Maxwell Air Force Base: Air University Press, 1988), 70.

² The White House, *National Security Strategy of Engagement and Enlargement, February 1996* (Washington, D.C.: GPO, 1996), i.

³ Joseph J. Romm, *Defining National Security* (New York: Council on Foreign Relations Press, 1993), 36.

⁴ Tony Brenton, *The Greening of Machiavelli* (London: Earthscan Publications Ltd, 1994), 165.

⁵ Major Tracey Walker, Office of the Under Secretary of Defense (Environmental Security), interviewed by author, 22 January 1996.

⁶ William J. Perry, Secretary of Defense, address to the Society of American Engineers, Washington D.C., 20 November 1996.

⁷ The White House, *National Security Strategy of Engagement and Enlargement, February 1996*, 1.

⁸ Tony Benton contends that United States environmental policy is at times mostly internally focused on domestic politics

⁹ Norman Myers, *Ultimate Security* (New York: W W Norton & Company, 1993), 222.

¹⁰ *ibid.*, 22.

Notes

¹¹Benton, *The Greening of Machlavelli*, 141.

¹²*ibid.*, 143.

¹³Barry Hughes, *Continuity and Change in World Politics* (Englewood Cliffs, New Jersey: Prentice Hall, 1994), 464.

¹⁴US Department of State, *US Foreign Policy and the International Financial Institutions*. US State Department Dispatch, vol. 7, no. 18. (Washington, D.C.: Office of the Under Secretary for Economic, Business, and Agriculture, 29 April 1996), 214

¹⁵*ibid.*, 215.

¹⁶Kevin Robinson, ed., "Environmental Protection Efforts Gain Force in Central America," *Latin America Data Base (LADB)*, 10 October 1995, n.p; online, Internet, 26 November 1996, available <http://csf.colorado.edu/elan/oct96/0041.html>.

¹⁷Javier Rodriguez Gomez, "PRI Communique on U.S. Senate Failure to Lift Tuna Embargo," *Mexico City EL FINANCIERO*, 11 October 1996. On-line. In *FBIS [Foreign Broadcast Information Service] Report: Latin America*, FBIS-LAT-96-200, 11 October 1996.

¹⁸Benton, *The Greening of Machlavelli*, 256.

¹⁹"Greenpeace Protesters Chain Themselves to US Embassy," *Mexico City NOTIMEX*, 6 August 1996. On-line. In *FBIS [Foreign Broadcast Information Service] Report: Latin America*, FBIS-LAT-96-153, 6 August 1996.

²⁰"Sierra Blanca Dump Hearing Planned," *BorderLines* 27, vol. 4, 8 November, 1996, *BorderLines* 27 - *Briefs Online*, on-line. Microsoft Internet Explorer, 4 November 1996.

²¹Hughes, *Continuity and Change in World Politics*, 261.

²²Daniel S. Papp, *Contemporary International Relations* (New York: Macmillan College Publishing Company, 1994), 91.

Chapter 3

Environmental Issues in Mexico

Mexico suffers severe environmental strains. Four-fifths of the country is semi-arid or arid, an expanse that is increasing through desertification, soil erosion, and general land degradation.

—Norman Myers
Ultimate Security

This chapter provides the reader with a brief overview of the Mexican environmental problems. The issues in Mexico are not unique for an industrializing nation, and they can provide a basis for other country case studies. The following areas will be reviewed: deforestation, sanitation and water, air quality, and population growth. In each section the impact on United States/Mexican environmental security will be reviewed. Understanding a country's unique environmental challenges provides a basis for development of congruent foreign policy initiatives. American policy actions should help other countries while promoting American objectives creating a "win-win" situation. Mexico's varied environmental problems present a challenge for Mexican President Zedillo and his government's domestic and foreign policies. They also present minor risks to regional stability.

Deforestation

Deforestation in Mexico grows as a problem. Continued expansion of farms and ranch land decrease the country's forested areas and add to its soil erosion problems. Deforestation continues at rates estimated between 3300-8000 square km per year, which is equal to 0.7-1.6% annual reduction of the total forested area.¹ In the short term deforestation makes lands available for agricultural expansion. Long term, however, agricultural production rates will decrease as a result of erosion and strains on the aquifers. It is a vicious cycle of development, use, and then increased demand for development after existing lands no longer produce.

Mexican officials have started to address the problems of deforestation. They have assembled a plan to address harvesting, forest fires, and reforestation. The plan includes the reforestation of 200,000 hectares a year till the year 2000 for a total of 10 million hectares.² Mexico is also working with the United States and other countries to exchange technology and intensify its international cooperation programs to better manage its natural resources.

Impact on Environmental Security

The affects of deforestation present minor impacts to regional stability. Many of the problems associated with land use are weakly linked to deforestation. First, lands cleared for farming are not restored after they no longer can produce crops. The inability of the country to produce enough food for its growing population forces the government to spend more of its limited wealth to import agricultural products. Second, displaced farmers from unproductive lands migrate to the cities or America to look for work.

Future migrants displaced from the rural areas will add to Mexico City's already excessive pollution problems. The exodus from the farm lands is attributed in part to the loss of viable lands for farming as a result of deforestation. Changes in governmental subsidies also contribute to the reduction in farming. In fact, agriculture, as a percentage of the Gross Domestic Product, declined by 2% from 1986 to 1994.³

Overall this problem is not likely to directly result in any significant regional problems for the United States, unless reforestation policies change. Current Mexican efforts appear promising and should help correct the problem.

Sanitation and Water

Mexico City continues to grow at a rate of 3.4% a year placing tremendous stress on area water supplies in terms of demand and pollution⁴. Other areas of the country are impacted by poor sanitation and potable water supplies to lesser extents. Many of the problems are attributed to poor planning and over population. Progress has been made in some portions of the country and this is promising. "Reported access to water supply and sewage services increased substantially over the past few years and reached a coverage of 84% and 67% respectively in 1992."⁵

Water

A cholera appearance in 1993 in the Mexican border town of Juarez adjacent to El Paso, raised interest in Mexico and the United States on the issue of water quality. The United States Environmental Protection Agency (EPA) provided funds for a training program to help educate local residents on proper water purification and hygiene.⁶ The Mexican government increased chlorinated water systems coverage from 52% in 1991 to

over 90% in 1993.⁷ Improved water treatment facilities will help enable continued growth assuming adequate water supplies remain.

Mexico City extracts one-third of its water supply from external sources. This strong dependence places tremendous stress on the water basins of Lerma and Cutzamula. Satellite towns' agriculture, like Xochimilco, suffer from the detrimental affects of Mexico City draining local aquifers. Bacteriological, physical, and chemical monitoring of the water quality in Mexico City shows deterioration due to over exploitation of ground water.⁸ The problem in Mexico City is they take water from areas that cannot support the demand without impacting other factors, such as agriculture.

Sanitation

Mexico continues to upgrade its treatment capabilities for domestic and industrial wastes, but there is substantial work left to do. Mexico City represents the largest challenge. Of an estimated total 115 cubic meters per second of municipal waste water only some 15% is treated before it is discharged.⁹ City sewage collection systems are well behind what would be considered acceptable for the United States in terms of health and safety. Domestic and industrial wastes are mixed. A very small portion of the waste stream is treated. The remainder is left to the environment to handle. Only approximately 75% of Mexico City's population has access to this crude collection system anyway.¹⁰ Untreated waste poses health problems for humans and the environment,"...gastrointestinal diseases have for long been the prime cause of death in Mexico and water pollution is the main factor in the spread of these diseases."¹¹

Impact on Environmental Security

This issue does not significantly affect regional stability between the United States and Mexico over the short term. However, continued Mexican population growth presents the opportunity for further water shortages and increased strain on the environment to absorb untreated waste. Mexico City currently suffers from chronic water shortages.¹² Water problems will continue to present problems as long as the growth rate and agriculture demands increase. “Water used for irrigation represents over 80% of total water consumed (excluding the requirements for hydroelectricity generation).”¹³ Population growth, water demand and quality, and agriculture must be addressed as a system to solve the problem.

As portions of the populations can no longer farm, due to lack of potable water or contamination, they may migrate to Mexico City or the United States. Another impact from lack of water and poor sanitation are the added costs of health care on the economy. This is clearly a long term problem with no short term solutions for Mexico. They have begun to address this issue and it should improve over time.

Air Quality

Air pollution is mainly an issue in Mexico City. Poor air quality has existed in Mexico City for over 20 years. The majority of air pollution results from the burning of hydrocarbons. The peak concentrations of ozone¹⁴ and suspended particle matter in Mexico City are more than four times the national and international norms.¹⁵ Mexico’s policy has been directed towards reducing car emissions, with mixed results. In 1986 the country began reducing lead content in gasoline concentrations and lead levels in the air

decreased. However, photochemical smog¹⁶ increased as a result of the new fuel mix.¹⁷ And “because of a reaction between the ultraviolet radiation from the sun, atmospheric oxygen, and combustion residues from the unleaded or low-lead gasolines, ozone concentrations in the city quickly rose.”¹⁸ Catalytic converters became mandatory in 1990 and this action, along with other requirements placed on vehicles, should help improve air quality. Industrial air pollutants are next for the government to address. Overall, air quality is a significant environmental issue facing Mexico City, further complicated by the city’s population growth.

Impact on Environmental Security

Mexico City air quality has been poor for so long it is unlikely to impact regional environmental security. There appears to be a willingness on behalf of the government to address the issue of air quality in Mexico City and with any hope the situation will improve. The problem is not under control yet and will take many years to bring air quality within worldwide acceptable air standards. The largest impact of poor air quality is the health of the residents and the vegetation. Deaths in Mexico City attributed to cancer, influenza, and pneumonia rose six-fold since 1956.¹⁹ Poor air quality may become more of an issue for residents as the standard of living improves and the population turns more attention to quality of life concerns. The issue of poor air quality appears to be isolated to Mexico City at this time and like other industrialized cities will take time to correct harmful practices of the past.

Population Growth

The population of Mexico was estimated at 94 million in 1995.²⁰ Population growth presents the largest environmental impact for the country. Population growth affects all other aspects of the environment, from water, air and land issues. The good news is the population growth rate from 1980 to 1990 slowed to 2.0%.²¹ Keeping this growing population employed and improving their living standards will continue to be a challenge. Lack of employment opportunities can lead to domestic unrest when they reach high levels. LDCs typically have a greater population growth than more-developed countries (MDCs) placing more stress on their internal systems. Mexico's 1995 growth rate of 1.8%²² is only slightly larger than the world growth rate of 1.5%.²³ Aggressive governmental involvement helped curb Mexico's population growth rate for the near term.

Migration

Migration from Mexico over the United States/Mexico border is a problem for both countries. Mexico must be concerned with its citizens and their treatment by its neighbor. The United States concerns stem from illegal immigration and the impact on its internal affairs. The 1996 presidential election highlighted the issue of illegal immigrants and the financial burden it places on the United States border states. Mexico and America share a 2,000 mile border. Attempts to control this expansive range have experienced mixed results. The migration problem is best summarized as follows:

According to Immigration and Naturalization Service (INS) estimates, about 3.8 million undocumented migrants were residing in the United States in June 1994. About half of these illegal residents entered the United States by unlawfully crossing the southern border from Mexico, while the other half entered as legal visitors and remained. The INS estimates that 98% of the migrants who illegally cross the US-Mexico

*border are Mexican; visitors who remain come from all over the world. Each year, the Border Patrol apprehends about 1 million Mexicans and returns them to Mexico.*²⁴

—US State Department Dispatch
22 May 1995

Impact on Environmental Security

Control over population growth is essential for continued Mexican development and similarly a growing economy will reduce the Mexico's impact on environmental security. The Mexican government appears to have the growth rate slowed to approximately the world average for the country as a whole. Further reductions in the growth rate, can only help their situation. Even with the present growth rate illegal immigration will continue to be a problem unless the growing population is provided employment opportunities. Illegal immigrants will continue to be a domestic problem politically for the United States, since there is no reason to expect the number of illegal immigrants to radically reduce in the future. Overall the population trend is positive.

Notes

¹Sedesol/INE, *Informe de la Situacion General en Materia de Equilibrio Ecologico y Protection al Ambiente 1991-1992* (Mexico City: Seedesol, 1993), quoted in Jamie Ros, et al., "Prospects for Growth and the Environment in Mexico in the 1990s," *World Development*, vol. 24, no. 2 (February 1996): 307-324.

²"Secretariat States Objectives of Forest Program," *Mexico City LA JORNADA*, 9 January 1996. On-line. In *FBIS [Foreign Broadcast Information Service] Report: Latin America*, FBIS-TEN-96-101, 9 January 1996.

³US Department of State, *Background Notes Mexico*, (Washington, D.C.: Office of Public Communication, May 1995), 5.

⁴*1996 Information Please Almanac*, (Boston: Houghton Mifflin Company, 1996), 130.

⁵Jamie Ros, et al., "Prospects for Growth and the Environment in Mexico in the 1990s," *World Development*, vol. 24, no. 2 (February 1996): 307-324.

⁶Richard Conniff, "Tex-Mex Border," *National Geographic*, vol. 189, no. 2 (February 1996): 44-69.

⁷Jamie Ros, et al., 307-324.

Notes

⁸Exequiel Ezcurra, et al., "Are Megacities Viable?," *Environment*, vol 38, iss. 1 (January 1996): 4-15

⁹Jamie Ros, et al., 307-324.

¹⁰Exequiel Ezcurra, et al., 4-15

¹¹Jamie Ros, et al., 307-324.

¹²Exequiel Ezcurra, et al., 4-15

¹³Jamie Ros, et al., 307-324.

¹⁴Importance of Ozone layer as defined in *Preserving the Global Environment*. "Two singular characteristics of this remote, unstable, and toxic gas make it so critical. First, certain wavelengths of ultraviolet radiation (UV-B) that can damage and cause mutations in animal and plant cells are absorbed by the extraordinarily thin layer of ozone molecules dispersed throughout the atmosphere, particularly in the stratosphere six to thirty miles in altitude, and thereby prevented from reaching the earth's surface; second, differing quantities of ozone at different altitudes can have major implications for global climate."

¹⁵Jamie Ros, et al., 307-324.

¹⁶The *Dictionary of Ecology and Environmental Science* defines Photochemical smog as the air pollution resulting when hydrocarbon and nitrogen oxide are exposed to sunlight, causing them to undergo a photochemical reaction to produce much more harmful chemicals. Often used in a more general sense to refer to any visible air pollution, especially at levels high enough to reduce visibility and to cause irritation to eyes, lungs, etc.

¹⁷Exequiel Ezcurra, et al., 4-15

¹⁸ibid.

¹⁹Munoz, Heraldo, ed., *Environment and Diplomacy in the Americas*, (Boulder: Lynne Rienner Publishers, 1992), 27.

²⁰CIA, *The World Factbook 1996-1997* (Washington D.C.: Brassey's, 1996), 279.

²¹Exequiel Ezcurra, et al., 4-15.

²²US Department of State, *Background Notes Mexico*, 1.

²³1996 *Information Please Almanac*, 127.

²⁴US Department of State, *Fact Sheet: Cooperation with Mexico-In Our National Interest*, US State Department Dispatch, vol. 6, no. 21, (Washington, D.C., 22 May 1995), 426.

Chapter 4

Role of Government and Economy

The total external debt of developing countries was approximately \$1.5 trillion in 1991. The three-year averages of total debt identify Brazil, Mexico, and India as having the greatest debts. For many developing countries, external debt is a large proportion of Gross National Product (GNP) and debt service takes a significant portion of the total foreign exchange earned from the export of goods and services, thereby limiting the potential for investment or consumption.

—World Resources
1994-1995

Environmental security depends on stable governments and economies. Eastern European countries under communist control were polluters. Concern for production overshadowed other interests. The estimated cost for environmental clean up in Poland is about \$250 billion over the next 25-30 years. In the early 1980s, the environment gained attention in Poland. Shortly after independence interest waned as attention turned to the economy.¹ This is not to say noncommunist countries do not pollute. The fact remains, however, democracies with strong economies tend to be in a position to be more willing and able to pay attention to the environment.

It is naive to expect environmental concerns to be cured in a country until the government is stable and the economy is on solid footing. Tony Benton in his book *The Greening of Machlaveli* contends, "...the impulse for environmental protection has been very much a democratic thing. It has required freedom of speech, freedom of publication

and a system of government responsiveness to public pressure to operate at its most effective.”² A stable government must have more than the will to address a problem. It must have the means. Latin American countries contend that the issues of underdevelopment, poverty, external debt, and more equitable economic internal economic developments must be addressed as part of any attempts to conserve hemisphere ecosystems.³ Understanding the relationship between governing systems, economies and the environment is critical for policy makers.

Mexican Government Stability

After Ernesto Zedillo Ponce de Leon was elected president of Mexico in 1994, he promised to institute many reforms for his country. He vowed to continue to open Mexico’s political system, curtail corruption, strengthen the fight against drug trafficking, and further Mexico’s market-oriented economic policies.⁴ Many political reforms have been made. Some of the more notable reforms in the government are a greater role for the Mexican congress and improved accountability. Mexico’s judicial system may take years to correct, but the progress is promising. To his credit, President Zedillo did not interfere with his Attorney General Antonio Lozano’s prosecution of the former president’s brother for corruption.⁵ Governmental reforms should further strengthen Mexico’s developing democracy.

A strong democracy and economy are essential for Mexico’s future environmental progress. A strong and stable Mexican democracy impacts economic progress in two ways. First, stability aids the economic growth of a country and fosters foreign investment. Second, democracies tend to allow more involvement in the political process

of its population and NGO's. Participation by non-governmental entities helps prevent unilateral decision making and strengthens the democratic process, including environmental policy development. A strong economy allows the government to work quality of life projects to include environmental programs.

Economy

Mexico and the United States understand that a strong Mexican economy is good for both countries. Mexico has liberalized its trade and investment laws and focused economic policy on building exports. Exports help generate jobs for Mexicans, which in turn strengthens their domestic market as internal consumption increases.⁶ President Zedillo, who holds a doctorate in economics, is aggressively pursuing a policy of economic growth.

The Mexican government appears to be making progress in turning their economy around since the country experienced an economic crisis in 1994. "After the administration bungled macroeconomics policy so spectacularly in 1994, and despite a faltering start in 1995, President Ernesto Zedillo's team has followed the textbook."⁷ Recovery of the economy plays an important impact on the environment. "Income growth is needed to alleviate existing situations of (extreme) poverty of large segments of the population as well as to generate an adequate amount of resources for environmental protection and infrastructure facilities."⁸ NAFTA should help with the recovery of the Mexican economy and place the Mexican government in a better financial position to tackle its environmental problems.

North American Free Trade Agreement (NAFTA)

NAFTA presents an excellent example of a foreign policy initiative framed to mutually benefit member economies, while considering sovereignty issues and the environment. NAFTA is the first time a United States trade agreement comprehensively addressed environmental issues.

The Purpose of NAFTA: The primary purpose of the trade agreement was to reduce tariffs and eliminate restrictions on the flow of goods, services, and investments in North America. The Pact also serves as a basis for mutual cooperation on other regional issues.⁹ The parties to the treaty include the United States, Canada, and Mexico. Creation of NAFTA in 1994 combined the worlds largest, eighth largest, and thirteenth largest economies.¹⁰ There were many concerns in the United States about integrating the economies of the three countries. Some of the concerns were environmental.

Environmental Side Agreements: The environmental side agreements in NAFTA were created to address concerns that industry would move from Canada and the United States to Mexico to take advantage of reduced environmental oversight. As part of the agreement the North American Commission on Environmental Cooperation was established to “...strengthen environmental laws and address common environmental concerns.”¹¹

The United States and Mexico created two other environmental institutions in November 1993 to address environmental infrastructure problems. The first was creation of the Border Environment Cooperation Commission (BECC) set to help local communities develop plans for sewage treatment facilities, water treatment facilities, and solid waste disposal. The second portion of the agreement was the establishment of a

North American Development Bank to help leverage private sector money for the construction of border environmental infrastructure projects.¹²

NAFTA appears to be a success for the United States and Mexico from both an economic and environmental view points. Despite a setback in 1995, due to Mexican domestic economic problems, the agreement is working. Even in 1995 United States imports to Mexico were still \$4.7 billion higher than before NAFTA was implemented.¹³ With the Mexican economy back on track trade has picked up 16 percent over 1995 figures for the first quarter in 1996.¹⁴ The agreement also benefits the environment.

The main benefit to the environment is through the establishment of the environment of the North American Commission on Environmental Cooperation, BECC and the North American Development Bank. These institutions create the framework for future cooperation and aid in solving regional environmental concerns.

Notes

¹Tony Brenton, *The Greening of Machlavelli* (London: Earthscan Publications Ltd, 1994), 74.

²*ibid.*, 85.

³Heraldo Munoz, ed., *Environment and Diplomacy in the Americas* (Boulder: Lynne Rienner Publishers, 1992), 7.

⁴US Department of State, *Background Notes Mexico*, (Washington, D.C.: Office of Public Communication, May 1995), 3.

⁵Craig Torres and Dianne Solis, "Zedillo Urges Patience on Austerity Plan," *Wall Street Journal*, 12 August 1996, sec. A, p. 7.

⁶*Ibid.*

⁷"After the Storm," *The Economist*, 29 June 1996, 75.

⁸Jamie Ros, et al., "Prospects for Growth and the Environment in Mexico in the 1990s," *World Development*, vol. 24, no. 2 (February 1996): 307-324.

⁹US Department of State, *Background Notes Mexico*, 5.

¹⁰Terry L. Anderson, ed., *NAFTA and the Environment*, (San Francisco: Pacific Research Institute for Public Policy, 1993), ix.

¹¹US Department of State, *Background Notes Mexico*, 5.

¹²*ibid.*

Notes

¹³Trade Information Center, *Business America*, (Washington D.C.: Government Printing Office, August 1996), 10-11.

¹⁴*ibid.*

Chapter 5

Mutual Cooperation - The Future

The Challenge before the Latin American and Caribbean countries is to see to it that environmental issues in inter-American relations are approached from a new perspective. Emphasis must be placed on the practical necessity of defining and treating environmental issues in the light of the hemisphere, excluding unilateral actions, and in accordance with a general criterion of solidarity.

—Joao Baena Soares
Environment and Diplomacy in the Americas

The environment presents a forum for mutual cooperation between the United States and Mexico. Since 1972 more than two thirds of the 170 environmental treaties have been developed.¹ Pressures from the public, NGOs and IGOs create a favorable atmosphere for more agreements in the future. The need to promote sustainable development places pressure on countries to cooperate on issues such as the environment. The book *Preserving the Global Environment* reports the sustainable development was first defined in a 1987 United Nations report, *Our Common Future*. The report defines sustainable development as economic activity that “meets the needs of the present without compromising the ability of future generations to meet their needs.”²

The NAFTA agreement is an example of economic collaboration tied to environmental agreements. IGOs appear to be the accepted forum for working transnational issues, such as the environment. There is an added interest in preserving our

environment as world economies become integrated. Mexico pursues many avenues of environmental cooperation with the United States and its southern neighbors.

This chapter broadly reviews some environmental cooperative actions between the United States and Mexico and regional cooperative efforts involving Mexico. The purpose of these examples of cooperation is to briefly offer an appreciation for the breadth of environmental cooperation Mexico is experiencing.

United States/Mexico Environmental Cooperation

The United States and Mexico share a rich history. In the environmental arena the history is more positive after the NAFTA treaty. Table 1 provides a concise history of environmental cooperation between the United States and Mexico (1995 State Department dispatch).³ Over the years environmental concerns gained attention as Mexico grew and industrialized. Population growth in the Mexican border towns, as a result of the maquiladora program⁴ started in 1965, created environmental and public health concerns. The positive legacy of these problems is the environmental side agreements in the NAFTA treaty. Another side benefit of the NAFTA treaty is increased contacts between the two governments.⁵

As discussed there are many forums for mutual cooperation on environmental issues between the United States and Mexico. One avenue not previously mentioned is the Binational Commission (BNC), created in 1981. It serves as a forum for cabinet-level meetings between the two governments. One of the BNC working groups is an environmental cooperation group. This group and the other cooperative efforts listed in Table 1 show a strong record of progress and a foundation for future endeavors.

Table 1. United States/Mexico Environmental Cooperation

YEAR	AGREEMENT	PURPOSE
1936	Convention for the Protection of Migratory Birds and Game Mammals	Protect birds and Mammals
1944	The 1944 Water Treaty	Addresses border sanitation problems
1983	La Paz Agreement	Established working groups to address; water quality, air pollution, waste disposal, emergency response, enforcement, and pollution prevention
1992	Integrated Border Environment Plan	Established to construct wastewater treatment plants, reduce pollution and help improve understanding of border environmental problems - "Plan 2000"
1993	NAFTA	Created North American Commission on Environmental Cooperation: strengthens environmental laws - addresses concerns
1993	Executive Agreement	Border Environment Cooperation Commission (BECC) - to plan for environmental facilities North American Development Bank - leverage private funding for environmental infrastructure projects
1995	Plan 2005	Update of plan 2000 started

There are still areas for concern for the United States and Mexico in the environmental arena. For Mexican border towns the problems can be summarized up as follows; lack of wastewater treatment and drinking water systems, lack of accounting of hazardous waste, and concern for industrial air and water pollution.⁶ Based on the recent history of cooperation in terms of funding and technical assistance there is no reason to believe these problems cannot be solved.

Regional Cooperation

Mexico is very active in the region and plays a strong role in regional forums outside its relationship with the United States. This cooperation is important for the environment,

economics, military affairs, and drug trafficking. Mexico in some cases, such as Cuba, takes a divergent view from the United States on some environmental concerns. The United States must be tolerant of Mexico's regional involvement, even when it is contrary to our policies. The involvement by the Mexican government in regional environmental affairs is important and helpful for building a climate of trust and cooperation in the region.

Participation in Regional Environmental Issues

Mexico serves as an extraregional sponsor of Alianza para el Desarrollo Sostenible (Sustainable Development Alliance - ALIDES), along with United States and Canada. ALIDES is an effort by the Central American governments to promote environmental protection programs. Mexico provided the group technical assistance and aid in securing funding for projects. The Inter-American Development Bank (IDB) granted over \$298 million for environmental projects in Central America in 1995.⁷ ALIDES will help secure future funding through a well developed and technically sound plan. Cooperation among the Central American countries on environmental issues can help further promote stability. Stability in the area is good for both Mexico and the United States.

International cooperation is becoming an understood practice for solving non-domestic problems for the Mexican government. Foreign Secretary Jose Angel Gurria was quoted as saying, "the world's great countries will only be able to face the great challenges of the end of the century successfully through international cooperation."⁸ The Latin and Caribbean country's efforts aimed at the environment directly aid their efforts to sustain development in the area.

Organization of American States (OAS). The OAS is the primary forum available for Mexican involvement in environmental matters in the hemisphere. The OAS is actively engaged trying to solve the environmental problems of the Caribbean and Latin America as a collective group. Perhaps the efforts of the group can be summarized best from an extract from the OAS Declaration of Brasilia agreement, March 1989.

The Ministers endorse the principle that each State has the sovereign right to administer freely its natural resources. This does not, however, exclude the need for international cooperation at the subregional, regional and world levels; rather it reinforces it.⁹

Mexico and the countries of the region understand the importance of member countries' sovereignty. At the same time they recognize most environmental issues can not be worked in isolation. Another major recognition of the OAS is that only through improved economic and social conditions can further defacement of the environment in their countries be prevented.¹⁰

Cuba: It is important to recognize that different states can cooperate on numerous issues and yet still disagree on others. Mexico's relationship with Cuba is contrary to United States policy. Mexico and Cuba, in May 1996, signed an agreement to devise a common environmental agenda, exchange experiences, and prevent legislation and decisions adopted by each country on environmental issues from affecting others.¹¹ Mexico has been willing to work with Cuba on environmental cooperation to include the area of atomic energy.

The United States must understand Mexico's right and need to work environmental issues in the region. As the Mexican economy grows and the government becomes even more stable it will most likely play an increased role in regional affairs. Efforts to improve

the overall environmental health of the region should be viewed as a positive action by the United States, since everyone in the area will benefit. Mexico is poised to play a dominate role in the hemisphere's environmental solutions. Whether Mexico assumes a leadership role or not is not as important as its active participation.

Notes

¹The World Resources Institute, *World Resources*, (New York: Oxford University Press, 1994), 224.

²Mathews, Jessica Tuchman, ed., *Preserving the Global Environment*, (New York: W W Norton & Company, 1991), 16.

³US Department of State, *Background Notes Mexico*, (Washington, D.C.: Office of Public Communication, May 1995), 5.

⁴Maguiladora program was established as a duty free industrialized zone in Mexico on the United States border in 1965.

⁵US Department of State, *Fact Sheet: Cooperation with Mexico-In Our National Interest*, US State Department Dispatch, vol. 6, no. 21, (Washington, D.C., 22 May 1995), 428.

⁶"NAFTA and the Texas/Mexico Border Environment," *Texas Environmental Almanac Focus*, 1-4; On-line. Microsoft Internet Explorer, 15 October 1996. Available <http://lib.nmsu.edu/subject/bord/bordline/index.html>.

⁷Kevin Robinson, ed., "Environmental Protection Efforts Gain Force in Central America," *Latin America Data Base (LADB)*, 10 October 1995, n.p; online, Internet, 26 November 1996, available <http://csf.colorado.edu/elan/oct96/0041.html>.

⁸"Foreign Secretary on International Cooperation," *Mexico City NOTIMEX*, 29 March 1996. On-line. In *FBIS [Foreign Broadcast Information Service] Report: Latin America*, FBIS-LAT-96-063, 29 March 1996.

⁹Munoz, Heraldo, ed., *Environment and Diplomacy in the Americas*, (Boulder: Lynne Rienner Publishers, 1992), 45.

¹⁰*ibid.*

¹¹"Minister on Expanding Environmental Ties With Mexico," *Havana PRENSA LATINA*, 24 May 1996. On-line. In *FBIS [Foreign Broadcast Information Service] Report: Latin America*, FBIS-LAT-96-104, 24 May 1996.

Chapter 6

Conclusions

Now that the Cold War is over, we have the opportunity to prevent threats from emerging. I see now three lines of defense. The first line is preventive defense, to keep the dangers out there from becoming threats to our nation. If we fail in preventive defense, then we have to build deterrence walls. That's the second line of defense. Finally, if deterrence fails we have to be prepared to fight and to win. But in the era in which we are now living, we have a very real opportunity to take actions that are comparable, you might say to preventive medicine. The actions you take now to prevent the disease from arising, the actions we can take to prevent dangers in the world today from becoming threats to our nation. Environmental security, we see as one of these actions we take that build up our preventive defense and keep us from having these dangers out there threaten our nation.

—William J. Perry
DOD News Briefing

Environmental security is a primary concern for United States policy makers. Transnational and regional environmental issues exist in the world that affect the long term security of the United States. The president's national security policy of engagement and enlargement states clearly that the United States will "engage" when needed to protect the interests of the United States. Environmental security is clearly an issue we must promote to achieve a prosperous long term future for our country.

As the recognized world leader we must formulate well-defined foreign policy priorities, both internationally and regional, against which we can apply our limited resources. We can leverage our efforts through coalitions and partnerships. The United

States can not unilaterally solve the world's environmental problems. Some problems may be best addressed regionally, while others require the cooperation of the entire world community. The environment is an issue where large numbers of IGOs, NGOs, and individual public citizens are interested participants. These actors demand and should get a greater role in solving environmental problems. Cooperation among all parties is essential. No country, even the United States, can solve transnational or regional environmental problems on its own due to the scope and costs involved.

The challenge ahead for the United States is to identify and prioritize those core interest problems that warrant attention. As shown in the Mexico example, presented in this paper, the environment can not be worked as a single issue. The example study illustrates the many factors involved in addressing even regional environmental problems. One factor we can never forget is the importance of sovereignty of individual states. When formulating environmental policies, state sovereignty must be respected, especially countries sensitive to the issue like Mexico.

Mexico is a vital regional partner for the United States and in many cases our assistance can help them solve internal environmental problems. We must work with them to determine their priorities and interests. Mexico has many environmental challenges ahead. Issues include, deforestation, sanitation and water, air quality, and population growth.

Fortunately for Mexico and the United States none of the environmental problems reviewed are severe enough to jeopardize regional stability. The Mexican government is making progress in correcting past environmental problems. They are also engaged in regional and world environmental forums. This involvement is positive and shows a

growing commitment to work collectively to solve regional and transnational environmental issues. This kind of cooperation is not only good for the environment, but also helps to build trust and friendship among the participating countries. Mexico's cooperation with the United States in particular is very positive.

The United States and Mexico have a keen interest in preserving their shared environment. The NAFTA treaty only strengthens those ties and further fosters the two countries stewardship of the environment. The other critical aspect of NAFTA is the positive economic effects the treaty will have for Mexico. Only with a solid economic and democratic foundation can Mexico continue to develop any long term environmental progress. The situation in Mexico is encouraging, at this point, for the economy and government. Efforts by the United States to assist the Mexican economy are well used. The stronger the economy and the more stable the government the better the country will be able to solve its environmental problems.

Glossary

ALIDES	Alianza para el Desarrollo Sostenible (Sustainable Development Alliance)
C	Centigrade
CFCs	Chlorofluorocarbons
BECC	Border Environment Cooperation Commission
BNC	Binational Commission
DOD	Department of Defense
IDP	Inter-American Development Bank
IGOs	International Governmental Organizations
IMF	International Monetary Fund
IOPs	Instruments of Power
LDCs	Less-Developed Countries
MDCs	More-Developed Countries
NAFTA	North American Free Trade Agreement
NGOs	Nongovernmental Organizations
NSC	National Security Council
UN	United Nations
USAF	United States Air Force

Bibliography

- "After the Storm." *The Economist*, 29 June 1996, 75.
- Air University. *Air University Style Guide for Writers and Editors*, 1996, n.p. On-line. Internet, 4 November 1996. Available from <http://www.au.af.mil/au/rco/style/>.
- Anderson, Terry L., ed. *NAFTA and the Environment*. San Francisco: Pacific Research Institute for Public Policy, 1993.
- Art, Henry W., ed. *The Dictionary of Ecology and Environmental Science*. New York: Henry Holt and Company, 1993.
- Binnendijk, Hans. *Strategic Assessment 1995: U.S. Security Challenges in Transition*. Washington D.C.: GPO, 1995.
- Brenton, Tony. *The Greening of Machiavelli*. London: Earthscan Publications Ltd, 1994.
- The Chicago Manual of Style*. 14th ed. Chicago: The University of Chicago Press, 1993.
- CIA. *The World Factbook 1996-1997*. Washington D.C.: Brassey's, 1996.
- Conniff, Richard. "Tex-Mex Border." *National Geographic*, vol. 189, no. 2 (February 1996): 44-69.
- "Dolphin-Tuna Issue Puts Cross-Border Environmental Collaboration to the Test." *BorderLines* 27, vol. 4, 8 November, 1996. *BorderLines* 27 - Briefs Online. On-line. Microsoft Internet Explorer, 26 November 1996.
- Drew, Dennis M., and Donald M. Snow. *Making Strategy*. Maxwell Air Force Base: Air University Press, 1988.
- Enciso, Angelica, and Elena Gallegos. "Fisheries Secretary on Lifting Tuna Emargo." *Mexico City LA JORNDA*, 3 October 1996. On-Line. In *FBIS [Foreign Broadcast Information Service] Report: Latin America*. FBIS-LAT-96-195, 3 October 1996.
- "Environment Cooperation Accord Signed With Cuba." *Mexico City LA JORNDA*, 23 May 1996. On-Line. In *FBIS [Foreign Broadcast Information Service] Report: Latin America*. FBIS-LAT-96-103, 23 May 1996.
- Ezcurra, Exequiel., et al. "Are Megacities Viable?" *Environment*, vol. 38, iss. 1 (January 1996): 4-15.
- "Foreign Secretary on International Cooperation." *Mexico City NOTIMEX*, 29 March 1996. On-line. In *FBIS [Foreign Broadcast Information Service] Report: Latin America*. FBIS-LAT-96-063, 29 March 1996.
- Gomez, Javier Rodriguez. "PRI Communique on U.S. Senate Failure to Lift Tuna Embargo." *Mexico City EL FINANCIERO*, 11 October 1996. On-line. In *FBIS [Foreign Broadcast Information Service] Report: Latin America*, FBIS-LAT-96-200, 11 October 1996.
- "Government Stops Participating in Tuna Commission." *Mexico City NOTIMEX*, 21 October 1996. On-Line. In *FBIS [Foreign Broadcast Information Service] Report: Latin America*, FBIS-LAT-96-209, 21 October 1996.

- Graeger, Nina. "Environmental Security?" *Journal of Peace Research*, vol 33, iss. 1 (February 1996): 109-116.
- "Greenpeace Protesters Chain Themselves to US Embassy." *Mexico City NOTIMEX*, 6 August 1996. On-line. In *FBIS [Foreign Broadcast Information Service] Report: Latin America*. FBIS-LAT-96-153, 6 August 1996.
- Hughes, Barry B. *Continuity and Change in World Politics*. Englewood Cliffs, New Jersey: Prentice Hall, 1994.
- 1996 Information Please Almanac*. Boston: Houghton Mifflin Company, 1996.
- Kissinger, Henry. *Diplomacy*. New York: Simon & Schuster, 1994.
- Konvitz, Josef W. "Mexico City: Metaphor for the World's Urban Future." *Environment*, vol. 38, iss. 2 (March 1996): 3-4.
- Magyar, Karl P., ed. *Global Security Concerns*. Maxwell Air Force Base: Air University Press, 1996.
- Mathews, Jessica Tuchman, ed. *Preserving the Global Environment*. New York: W W Norton & Company, 1991.
- "Minister on Expanding Environmental Ties With Mexico." *Havana PRENSA LATINA*, 24 May 1996. On-line. In *FBIS [Foreign Broadcast Information Service] Report: Latin America*. FBIS-LAT-96-104, 24 May 1996.
- Munoz, Heraldo, ed. *Environment and Diplomacy in the Americas*. Boulder: Lynne Rienner Publishers, 1992.
- Myers, Norman. *Ultimate Security*. New York: W W Norton & Company, 1993.
- "NAFTA and the Texas/Mexico Border Environment." *Texas Environmental Almanac Focus*, 1-4. On-line. Microsoft Internet Explorer, 15 October 1996. Available <http://lib.nmsu.edu/subject/bord/bordline/index.html>.
- Papp, Daniel S., *Contemporary International Relations*. New York: Macmillan College Publishing Company, 1994.
- Perry, William J., Secretary of Defense, Address. Society of American Engineers, Washington D.C., 20 November 1996.
- Perry, William J., Secretary of Defense, News Briefing. Society of American Engineers, Washington D.C., 20 November 1996.
- Purkitt, Helen E., ed. *World Politics 96/97*. Guilford, Connecticut: Dushkin Publishing Group/Brown & Benchmark Publishers, 1996.
- Robinson, Kevin, ed. "Environmental Protection Efforts Gain Force in Central America." *Latin America Data Base (LADB)*, 10 October 1996, n.p. On-line, Internet, 26 November 1996. Available <http://csf.colorado.edu/elan/oct96/0041.html>.
- Romm, Joseph J., *Defining National Security*. New York: Council on Foreign Relations Press, 1993.
- Ros, Jaime, et al. "Prospects for Growth and the Environment in Mexico in the 1990s." *World Development*, vol. 24, no. 2 (February 1996): 307-324.
- "Secretariat States Objectives of Forest Program." *Mexico City LA JORNADA*, 9 January 1996. On-line. In *FBIS [Foreign Broadcast Information Service] Report: Latin America*. FBIS-TEN-96-101, 9 January 1996.
- Sedesol/INE, *Informe de la Situacion General en Materia de Equilibrio Ecologico y Protection al Ambiente 1991-1992* (Mexico City: Seedesol, 1993), quoted in Jamie

- Ros, et al. "Prospects for Growth and the Environment in Mexico in the 1990s." *World Development*, vol. 24, no. 2 (February 1996): 307-324.
- Self, Patricia, and Gwen Story, eds. *War and Conflict*. Maxwell Air Force Base: Air Command and Staff College, 1996.
- "Sierra Blanca Dump Hearing Planned." *BorderLines* 27, vol. 4, 8 November, 1996. *BorderLines* 27 - *Briefs Online*. On-line. Microsoft Internet Explorer, 4 November 1996.
- The White House. *National Security Strategy of Engagement and Enlargement, February, 1996*. Washington, D.C.: GPO, 1996.
- Trade Information Center. *Business America*. Washington D.C.: Government Printing Office, August 1996.
- US Department of State. *Background Notes Mexico*. Washington, D.C.: Office of Public Communication, May 1995.
- US Department of State. *Fact Sheet: Cooperation with Mexico-In Our National Interest*. US State Department Dispatch, vol. 6, no. 21. Washington, D.C., 22 May 1995.
- US Department of State. *US Foreign Policy and the International Financial Institutions*. US State Department Dispatch, vol. 7, no. 18. Washington, D.C.: Office of the Under Secretary for Economic, Business, and Agriculture, 29 April 1996.
- Wall Street Journal, 12 August 1996.
- The World Resources Institute. *World Resources*. New York: Oxford University Press, 1994.

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